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ABSTRACT

Many directors of college recreational programs are feeling pressure for increased accountability in the face of shrinking financial resources and increased demand for services. One method of providing that accountability and learning about the strengths and weaknesses of services offered is by assessing the level of client satisfaction. Developed by marketing researchers, SERVQUAL is a service quality measurement tool that compares clients' expectations for service performance with their perceptions of actual service performance. The tool divides customer satisfaction into five measurable components: tangibles, reliability, responsiveness, assurance, and empathy. A questionnaire used by Campus Recreation at the University of Nebraska at Omaha was altered from its retail industry origins to meet the needs of college programs and includes 22 statements on client expectations of service quality, 22 statements on client perceptions of service quality, and sections on use patterns and demographics. The statistics generated are basic and relatively easy to compile on a spreadsheet program. Survey information can provide direction for staff training, equipment purchasing, facility design, and other program aspects that affect customer satisfaction. This paper includes a sample survey and suggestions for survey implementation and interpretation. (Author/SV)

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Measuring Service Quality in Recreational Programs with SERVQUAL

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ABSTRACT:

Most program directors are feeling pressure from their administration for increased accountability with today's shrinking financial resources and increased demand in services. One method of providing that accountability and learning about the strengths and weaknesses of the services you offer is by discovering the level of satisfaction clientele have with your programs. The SERVQUAL service quality measurement tool statistically measures the service perceptions and expectations of your clientele. It divides customer satisfaction into five measurable components: tangibles, reliability, responsiveness, assurance, and empathy. The tool also allows the clients to rank the importance of each dimension. The statistics are basic and relatively easy to compile on a modern spreadsheet program. The information from the survey will provide direction in staff training, equipment purchasing, facility design, and many other aspects that affect customer satisfaction.

What is SERVQUAL:

In short SERVQUAL was developed by marketing researchers Valarie Zeithaml, A. Parasuraman and Lenoard Berry in 1990 to measure service quality in the retail world. Their approach is to evaluate customers' individual experiences to see that they are at least as good as they should be, from the customer's point of view. SERVQUAL can also measure the strengths and weaknesses of customer contacts.

Measuring the experience of customers is based on a comparison between the clients' expectations for service performance and perceptions of the *actual* service performance. If the clientele's collective perceptions of actual service exceed their expectations for service performance, the agency is meeting the service needs of its customers. If the perceptions of actual service performance do not meet the expectations, the agency is lacking in one or more areas of service quality.

Getting tangible measurements of the expectations and perceptions of customers, concerning the service they receive, is difficult if not impossible without subdividing service into smaller defined parts. To start one must measure both the outcome and process when evaluating service products. The **outcome** refers to getting the job done – fulfilling the "service promise." An example of this would be providing a canoeing trip as the agency advertised it would. The **process** is the transaction experience or the personal interaction between the provider and the user. Keeping with the canoe trip example, a process can be seen in how welcome the participants are made to feel when they register for the activity. Did the staff greet the participants with

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enthusiasm and sincerity at the registration or treat the participants as if they were a chore or interruption to other concerns?

Outcome and process are divided further into the Five Dimensions of Service Quality for statistical measurement to accurately measure different components of the service experience. Outcome is relatively easy to measure. The job was either completed correctly the first time or it was not. It is otherwise known as **Reliability** -- the ability to perform the promised service dependably and accurately.

Process is more abstract and difficult to measure. It is divided into the remaining four dimensions of service quality – Responsiveness, Assurance, Empathy, and Tangibles. **Responsiveness** measures the willingness of the staff to help customers and the staffs' ability to provide prompt service. **Assurance** measures the employees' apparent knowledge of the agency, courtesy towards the clientele, and their ability to convey trust and confidence to the users. It includes concepts such as competence, credibility and security. **Empathy** measures the staff's ability to show caring and individualized attention to the clientele. It includes the concepts of access to the staff by users, communication between both, and the staff's ability to understand the customers. **Tangibles** measure the appearance of the facility to the user. It includes the appearance of the physical facility, its equipment, the personnel, and any other related materials (i.e. promotional materials)(Parasurman 1988).

Implementation of a SERVQUAL study:

The questionnaire used by Campus Recreation at UNO, and provided as an example at the end of this paper, was altered from its retail industry origins to meet the needs of Campus Recreation and other recreation agencies by Dr. Amy Hubbert of the UNO College of Business Administration, Marketing Department and the author. SERVQUAL is administered in the form of a three part questionnaire (refer to the sample survey at the end of this paper.) These main parts consist of 22 statements on the perceptions of actual service quality, 22 statements on the clientele's expectations of service quality and a ranking of the importance of each dimension. The two sets of statements provide information about different aspects of each dimension, and the ranking section provides information concerning the importance of each dimension to the agency's clientele. Two additional sections were added to the survey by UNO Campus Recreation to measure the respondents' use patterns and demographics.

The first set of 22 statements is related to the respondents' perceptional beliefs about the actual service that the agency is currently providing. Each statement represents an aspect of one of the five dimensions of service quality. The respondents read the statement and then indicate on a seven-point scale whether they agree with it.

The second set of 22 statements is related to the respondents' expectations of the type of service the agency should be providing. The respondents are once again asked to read the statement and indicate on a seven-point scale whether they agree or disagree. (One being "strongly disagree" and seven being "strongly agree.") Each set of statements can be found in the sample survey at the end of this paper.

Each statement in one set corresponds directly with the same numbered statement in the other set. For example, statement one from the "Your Perceptions" section of the sample reads, "We provide modern equipment for your use." Its corresponding statement, number one from "Your Expectations," reads, "We will have modern equipment for your use." This type of correlation exists throughout both of the first two parts of this questionnaire and is very important later when measuring customer service.

As stated earlier, each corresponding set of statements represents a component of one of the five dimensions of service quality.

Tangibles:	statements 1 - 5
Reliability:	statements 6 - 10
Responsiveness:	statements 11 - 13
Assurance:	statements 14 - 17
Empathy:	statements 18 - 22

The data provided from comparing this information could be used at the individual statement level or at the dimensional level. Very specific information can be gathered in a variety of service areas when examining this data statement by statement. Data examined from the dimensional level provides the researcher with more general information that can be compared nominally to data in the next section.

The next major part of this questionnaire is the "What is Important to You:" section. This section gives the researcher information on how the respondents rank the importance of each dimension as a whole. Respondents are asked to rank the provided statements by allocating a total of 100 points amongst the 5 statements. Each statement represents one of the five dimensions of service quality.

Tangibles	statement 1
Reliability	statement 2
Responsiveness	statement 3
Assurance	statement 4
Empathy	statement 5

The more important a statement is to the respondent, the more points it should receive. They may allocate any number to each statement that they chose as long as the final combined score does not exceed 100 points. This section not only provides a ranking of the five dimensions, but also can be compared loosely with dimensional data from the last section. For example, if the agencies clientele value tangibles (data from the importance section) but the agency scored low in tangibles (data from the statements sections), then the agency has data showing a need for the investment in tangibles.

Two minor components of this questionnaire can be added in the design phase to put more of a "face" on the data. The agency may decide to collect user information, concerning which departments or services the respondents utilize, and demographic data about the respondents. Examples of this have been provided in the sample survey at the end of this paper.

The last step before implementing the survey is to run a pilot study on a small group of students and staff. The purpose of this is to test the tool. It is important to ascertain whether the questionnaire's directions are understandable, the statements make sense to the respondents, and to find any last editing mistakes. It is also a good idea to run the data through the computation process the agency will use to get results from the survey. It is best to find this kind of information and possible mistakes before the enormous task of collecting and processing the data takes place. A mistake made in the design phase of implementation can sabotage the results of the survey, making it difficult or impossible to get valid and reliable results.

Finally, implement the questionnaire. How many complete surveys an agency will need for accurate results (sample size) will depend entirely on the agency in question. The types and number of services it offers, population -- how many

customers it has (a difficult number to compute when dealing with large numbers of repeat business), budget for this project, and time to complete project all come into consideration. As with most things remember the motto, "Garbage in, Garbage out."

A good method of collection for most recreation service agencies is to administer this survey at the end of programs and activities. A gimmick or prize for completing the survey may be useful, but studies have shown that overall survey design and appearance is better at eliciting higher response rates than depending on a prize for completing the survey.

Interpretation of data:

Once all of the surveys have been collected, it is time to start processing the data into results. This section will focus on calculating the service quality score, ranking the five dimensions of service quality, and analyzing the data for use information and demographics. It is recommended that a spread sheet or statistical analysis program be used for this time consuming task and that data entry be considered when designing the survey.

To calculate the agency's service quality score the individual mean score for each of the 22 statements, both perceptions and expectations (44 statements total), must be calculated. Then take the mean score for one of the *perceptions* statements and subtract the mean score of the corresponding *expectation* statement. The resulting positive or negative number is the service quality score for the aspect of customer service that corresponding pair of statement describes.

Service Quality = Perceptions - Expectations

For example, say the mean score to *perceptions* statement number one is six and the corresponding *expectation* statement number one is 5.5, then the service quality score for the corresponding pair of statements number one is a positive 0.50. A positive score indicates that customer perceptions exceed expectations (perceptions > expectations). A negative score shows that customer expectations of service are not being met (perceptions < expectations).

At this time the service quality score of each dimension can be computed to compare strengths and weaknesses from the dimensional perspective. Start by establishing which dimension a service quality score will be calculated. Remember the corresponding sets of statements represent different dimensions (i.e. Tangibles are represented by corresponding perception and expectation statements 1 - 5.) Then calculate a mean score for the *perception* statements representing the chosen dimension and a mean score for the corresponding *expectation* statements. Calculate the service quality score the same way as for an individual statement. Dimension Service Quality equals the Mean Dimension Perception Score minus the Mean Expectation Score. The following table displays the process. Interpreting the service quality scores at the dimensional level is the same as was described above for the individual pairs of corresponding statements.

Dimension Service Quality Score for Tangibles

Statement	Perception Mean Score	Expectation Mean Score
1	6	6
2	4.5	5
3	4	5
4	6	5
5	6	4
Mean Score	**5.3**	**5**

Service Quality = Perception - Expectation
0.3 = 5.3 - 5

Service Quality = 0.3

The above example shows a positive score of 0.3 for the Dimension of Tangibles. It indicates that the clientele's actual perceptions of service quality roughly equal their expectations for the agency.

Once the Service Quality scores have been figured, it is good to calculate the "What is Important to You" section for a different perspective of the dimensions. Perform descriptive statistics (mean, standard deviation, median, and mode) for each of the statements. A mean score and standard deviation for each statement will provide cumulative information as to how each dimension/statement was ranked by the respondents. This information can be used to give an indication of the importance of each dimension to the clientele and "weight" the results from the previous section as discussed earlier in the implementation part of this paper. The following table depicts the average points assigned to a dimension in a service related industry.

Reliability	32
Responsiveness	22
Assurance	19
Empathy	16
Tangibles	11

It is interesting to note that each time the author has run this survey Tangibles have rated at the top of the list with a score in the lower thirties, with the other dimensions falling in present order afterwards. Median and mode information will further describe the bell shaped distribution of the data in each dimension. Mean, median and mode numbers that are equal or very close to each other indicate a close distribution of the responses, meaning most of the respondents agreed with each other or felt similarly about the topic. Mean, median and mode numbers that are very different from each other indicates a larger dispersal of opinions on the topic.

Finally calculation of Use Patterns and Demographics should be calculated. This data will provide descriptive information about the respondents and their use patterns. The type of statistics used will depend on the nature of the question. Frequency (percentages, tallies, etc.) and descriptive (mean, median, mode, standard deviation) statistics should be adequate for most of the data.

What information do SERVQUAL results provide:

SERVQUAL provides a large variety of information once the data has been calculated and the results properly analyzed. A great deal can be learned just from examining the Service Quality Scores for the corresponding sets of statements. They provide direct feedback on specific aspects of the agency's service abilities. The benefits of analyzing this information at the dimensional level have already been discussed. The researcher can also examine this data from the viewpoint of distinct customer segments by sorting the data based off use patterns and demographic information of the respondents.

The information gathered from the above analysis can be used to aid in the development of training programs for the agency staff. Examples may include customer service training in being responsive, empathetic, etc. A need for the staff to have more job knowledge and empowerment may be discovered, or the need for better maintenance and repair of the equipment are all possibilities.

SERVQUAL data can also be used in developing goals and objectives for the coming year. The above-mentioned training objectives or the justification of purchasing decisions and resource allocation or reallocation. Suppose the agency has a negative tangibles score and the clients rate tangibles as being very important to them. The administration would then hopefully decide to allocate some resources in that direction to fill the gap.

This study can be used for position justification if necessary as well. Suppose a department has been mandated to reduce the number of its staff. One possible defense in this situation is to use the data from this study to show the need the number of staff to handle all the necessary training, empowerment, availability, etc. that the clientele demand.

Finally, this study is only a "snap shot" of the agency's service performance at a distinct time and place. It is recommended that the study be repeated from time to time to show continuous accountability and compare customers' expectations and perceptions over time.

SERVQUAL is a powerful tool for measuring the intangible aspects of recreation services. The statistics are easy, even easier when using a spreadsheet or statistical analysis program, and the results provide accountability and direction in many areas of administrative responsibility. Finally, customer satisfaction equals repeat customers and positive word of mouth. Is that not what all recreational programs want?

Campus Recreation Satisfaction Survey

Please answer the following questions. If you do not understand one of the questions, ask the person facilitating this survey for assistance.

Which Campus Recreation program and/or facilities do you use? (Check each that applies to you.)

_____ Informal Recreation (weight room, activity courts, jogging track, drop-in aerobics, summer camps, etc.)
_____ Aquatics (lap swimming, family swim, open swim, children's swim lessons, water aerobics, scuba, Maverick Masters etc.)
_____ Intramural Sports (flag football, volleyball, racquetball leagues, etc.)
_____ Outdoor Recreation (outdoor equipment rental, backpacking, rock climbing, canoeing trips, etc.)
_____ Sport Clubs (martial arts, lacrosse, soccer, bowling, etc.)
_____ Special Events (UNO Try-atholon, road races, etc.)
_____ Instructional Programs (Golf with a Pro, Dance Lessons, etc.)

Your Perceptions:

Directions: The following statements relate to your beliefs about Campus Recreation. Indicate the extent to which you ***agree*** Campus Recreation has the feature described in each statement below by circling one of the numbers on the scale next to that statement. There are no right or wrong answers, we are merely interested in your **perceptions** of Campus Recreation facilities and services.

	Strongly Disagree						**Strongly Agree**
1. We provide modern equipment for your use.	1	2	3	4	5	6	7
2. The equipment is always in good working order.	1	2	3	4	5	6	7
3. There is enough equipment that I never have to wait to use something.	1	2	3	4	5	6	7
4. The layout of the building makes each activity area easy to use.	1	2	3	4	5	6	7
5. Published materials about Campus Recreation are visually appealing.	1	2	3	4	5	6	7
6. When Campus Recreation promises to do something by a certain time, it does so.	1	2	3	4	5	6	7
7. When you have a problem, the staff shows a sincere interest in working towards a solution.	1	2	3	4	5	6	7
8. Campus Recreation does things right the first time.	1	2	3	4	5	6	7
9. Campus recreation employees are easy to recognize.	1	2	3	4	5	6	7
10. Campus Recreation keeps your records error-free.	1	2	3	4	5	6	7
11. The employees quickly provide any information or services you request.	1	2	3	4	5	6	7

Please turn the page.

	Strongly Disagree						Strongly Agree
12. The staff is always willing to help.	1	2	3	4	5	6	7
13. Our employees are never too busy to help you.	1	2	3	4	5	6	7
14. The actions of the employees gives you confidence in Campus Recreation.	1	2	3	4	5	6	7
15. You feel secure in your dealings with Campus Recreation.	1	2	3	4	5	6	7
16. Campus Recreation employees are courteous to you.	1	2	3	4	5	6	7
17. The employees have the knowledge to answer your question.	1	2	3	4	5	6	7
18. Campus Recreation gives you individual attention.	1	2	3	4	5	6	7
19. Campus Recreation's operating hours are convenient.	1	2	3	4	5	6	7
20. The employees give you personal attention.	1	2	3	4	5	6	7
21. Campus Recreation has your best interests at heart.	1	2	3	4	5	6	7
22. The staff understands your specific needs.	1	2	3	4	5	6	7

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Your Expectations:

Directions: The following statements relate to your expectations of Campus Recreation. Indicate the extent to which you believe the feature described in each statement below is ***essential*** to Campus Recreation services and programs by circling one of the numbers on the scale next to that statement. There are no right or wrong answers, we are merely interested in your **expectations** of Campus Recreation.

	Strongly Disagree						Strongly Agree
1. We will have modern equipment for your use.	1	2	3	4	5	6	7
2. The equipment will always be in good working order.	1	2	3	4	5	6	7
3. There will be enough equipment that I never have to wait to use something.	1	2	3	4	5	6	7
4. The layout of the building makes each activity area easy to use.	1	2	3	4	5	6	7
5. Published materials about Campus Recreation will be visually appealing.	1	2	3	4	5	6	7
6. When Campus Recreation promises to do something by a certain time, it will be done.	1	2	3	4	5	6	7
7. When you have a problem, the staff will show a sincere interest in working towards a solution.	1	2	3	4	5	6	7
8. Campus Recreation will perform services right the first time.	1	2	3	4	5	6	7

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	Strongly Disagree						Strongly Agree
9. Campus recreation employees will be easy to recognize.	1	2	3	4	5	6	7
10. Campus Recreation will keep your records error-free.	1	2	3	4	5	6	7
11. The employees will quickly provide any information or services you request.	1	2	3	4	5	6	7
12. The staff will always be willing to help.	1	2	3	4	5	6	7
13. Our employees will never be too busy to help you.	1	2	3	4	5	6	7
14. The actions of the employees will give you confidence in Campus Recreation.	1	2	3	4	5	6	7
15. You will feel secure in your dealings with Campus Recreation.	1	2	3	4	5	6	7
16. Campus Recreation employees will be courteous to you.	1	2	3	4	5	6	7
17. The employees will have the knowledge to answer your questions.	1	2	3	4	5	6	7
18. Campus Recreation will give you individual attention.	1	2	3	4	5	6	7
19. Campus Recreation will have operating hours that are convenient.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
20. The employees will give you personal attention.	1	2	3	4	5	6	7
21. Campus Recreation will have your best interests at heart.	1	2	3	4	5	6	7
22. The staff will understand your specific needs.	1	2	3	4	5	6	7

What is Important to You:

Listed below are five features pertaining to Campus Recreation and the services they offer. We would like to know how important each features is to *you* when evaluating an agency of this nature. Please allocate a total of 100 points among the five features *according to how important each feature is to you* — the more important a feature is to you, the more points you should allocate to it. Please ensure the points you allocate to the five features add up to 100.

1. The appearance of the agency's physical facilities, equipment, personnel, and communications materials. _____ points
2. The ability of the agency to perform the promised service dependably and accurately. _____ points
3. The willingness of the agency to help customers and provide prompt service. _____ points
4. The knowledge and courtesy of the agency's employees and their ability to convey trust and confidence. _____ points
5. The caring, individualized attention the agency provides its customers. _____ points

Total Points Allocated **100 points**

Please turn the page.

Please answer the following question:

Gender: ____ Male ____ Female

Age: _____ **Marital status:** _____

# of dependent children _____

# of hours employed / week: _____

Class Standing: ____Fresh. _____ Soph. ____Jr.

____Sr. ____Grad.

____Non-Student / HPER-Card holder

Hours enrolled this semester: _____

Number of years at UNO: _____

How often a week do you use Campus Recreation services: _____

Written Comments:

Thank you for your time and consideration.